What is claimed is:

1.   A data storage device, the device comprising:

a device interface for receiving data access requests;

5   more than two disk drives having platter sizes less than 3.5 inches in diameter; and

a controller that accesses the disk drives in response to the received data access requests.

10   2.   The data storage device of claim 1, wherein the interface comprises an interface configured to conform to a protocol.

3.   The data storage device of claim 2, wherein the 15 protocol comprises at least one of the following: SCSI (Small Computer System Interface), Fibre Channel, and Infiniband.

4.   The data storage device of claim 1, wherein the platter sizes comprise platters of at least one of the following sizes: 20 2.5 inches, 1.8 inches, and 1 inch.

5.   The data storage device of claim 4, wherein at least one of the drives comprises an IDE (Integrated Disk Electronics) drive.

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6.   The data storage device of claim 1, wherein the more than two disk drives having platter sizes less than 3.5 inches in diameter comprise more than two disk drives having platter sizes 2.5 inches or less in diameter.

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7.   The data storage device of claim 1, wherein the more than two disk drives having platter sizes less than 3.5 inches in diameter comprise more than two disk drives having platter sizes one inch in diameter or less.

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8.   The data storage device of claim 1, further comprising a housing.

9.   The data storage device of claim 8, wherein the housing

10   has one of the following form factors: standard, half-height, and low-profile.

10.   The data storage device of claim 1, wherein the controller comprises a controller configured to implement a RAID

15   scheme.

11.   The data storage device of claim 10, wherein the scheme implemented by the controller comprises a RAID scheme independent of a hierarchically higher RAID controller that

20   sends the data storage device RAID data.

12.   The data storage device of claim 11, wherein the RAID data comprises at least one of: a strip, an error detection code, and an error correction code.

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13.   The data storage device of claim 1, further comprising a cache manager.

14.   The data storage device of claim 13, wherein the cache

30   manager comprises a manager configured to perform at least one of the following: translate an address of a different storage

device to a cache address; cache data included in a write request; load data from the different storage device; and remove cached data.

5   15.   The data storage device of claim 1, further comprising a controller card that includes the controller and connections available to couple with more than one storage card that provides access to a least two of the drives.

10   16.   The data storage device of claim 15, wherein the storage card comprises a card having at least one parallel interface to a collection of the drives.

        17.   The data storage device of claim 15, wherein the
15   drives comprise IDE (Integrated Disk Electronics) drives.

        18.   The data storage device of claim 15, wherein the connection between the controller and the storage card comprises a serial connection.
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        19.   The data storage device of claim 15, wherein the controller comprises a bank interface that routes data requests to the appropriate bank of drives.

25   20.   A data storage system, the system comprising:
        at least one first data storage device having a platter size of at least 3.5 inches in diameter;
        at least one second data storage device comprising:
                a device interface for receiving data access requests;
30   a first controller configured to receive data access requests from the interface; and

more than two disk drives coupled to the controller, the drives having platter sizes less than 3.5 inches in diameter; and

5   a second controller that coordinates data access to the at least one first data storage device and the at least one second data storage device.

21.   The data storage system of claim 20, wherein the first controller comprises a controller configured to implement a RAID
10   scheme.

22.   The data storage system of claim 20, wherein the platter sizes less than 3.5 inches in diameter comprise platters of at least one of the following sizes: 2.5 inches, 1.8 inches,
15   and 1 inch.

23.   The data storage system of claim 20, wherein the drives having platter sizes less than 3.5 inches comprise IDE (Integrated Disk Electronics) drives.
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24.   A method of servicing data access requests at a data storage device, the method comprising:
    receiving data access requests at a device interface of the data storage device;
25   accessing more than two disk drives having platter sizes less than 3.5 inches in diameter in response to the received data access requests.

25.   The method of claim 24, wherein the interface
30   comprises an interface configured to conform to a protocol.

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26. The method of claim 25, wherein the protocol comprises at least one of the following: SCSI (Small Computer System Interface), Fibre Channel, and Infiniband.

5   27. The method of claim 24, wherein the platter sizes comprise platters of at least one of the following sizes: 2.5 inches, 1.8 inches, and 1 inch.

28. The method of claim 24, wherein accessing the more

10   than two disks comprises accessing the more than two disks in accordance with a RAID scheme.

29. The method of claim 28, wherein receiving a data access request comprises receiving a data access request from a

15   hierarchically higher RAID controller.